



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,628	07/24/2003	Gerrit Koppert	KOPPERT1A	9050
1444	7590	12/29/2005	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C.			ROBINSON, KEITH O NEAL	
624 NINTH STREET, NW			ART UNIT	
SUITE 300			PAPER NUMBER	
WASHINGTON, DC 20001-5303			1638	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

10

<b>Office Action Summary</b>	<b>Application No.</b> 10/625,628	<b>Applicant(s)</b> KOPPERT, GERRIT	
	<b>Examiner</b> Keith O. Robinson, Ph.D.	<b>Art Unit</b> 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2 and 4-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The text of those sections to Title 35, U.S. Code not included in this action can be found in a prior Office Action, mailed August 11, 2005.

The amendments to claims 1, 4-6, 8-9 and 11-17 and the cancellation of claim 3, filed October 12, 2005, have been received and entered in full.

Claims 1, 2 and 4-17 are under examination.

### ***Response to Arguments***

2. Applicant's arguments with respect to the claim objections of claims 3-6, 8, 9 and 11-15 have been fully considered and are persuasive (see page 7, third paragraph of 'REMARKS', filed October 12, 2005). The objection of claims 4-6, 8, 9 and 11-15 has been withdrawn. Applicant canceled claim 3.

Applicant's 'AMENDMENT TO THE CLAIMS', filed October 12, 2005 have overcome the 35 U.S.C. §102(b) rejection as being anticipated by Giusti et al for claims 1, 2, 4-12 and 17, as applied to claims 1-12 and 17 of the previous Office Action mailed August 11, 2005. The amended claims now read on 800 nmol per gram fresh weight of sprout and the cited reference does not provide support for 800 nmol per gram fresh weight of sprout.

Applicant's 'AMENDMENT TO THE CLAIMS', filed October 12, 2005 have overcome the 35 U.S.C. §102/103 rejection as being anticipated by or, in the

alternative, obvious over Giusti for claims 1, 2, 4-12 and 17, as applied to claims 1-12 and 17 of the previous Office Action mailed August 11, 2005. The amended claims now read on 800 nmol per gram fresh weight of sprout and the cited reference does not provide support for 800 nmol per gram fresh weight of sprout.

### ***Double Patenting***

3. Claims 1-2 and 5-16 remain rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 6,686,517.

Applicant argues that the double patenting rejection is premature at this stage of prosecution (see page 7, last two paragraphs to page 8, lines 1-3 of 'REMARKS', filed October 12, 2005).

This is not persuasive. The Examiner maintains that the rejection is proper and refers Applicant to pages 2-3 of the previous Office Action, mailed August 11, 2005 wherein it is stated that the rejection can be overcome by a timely filed terminal disclaimer.

### ***Claim Rejections - 35 USC § 112, first paragraph – Written Description***

4. Claims 1, 2 and 4-17 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application

Art Unit: 1638

was filed, had possession of the claimed invention. The rejection is repeated for the reasons of record as set forth in the Office Action mailed August 11, 2005, as applied to claims 1-17.

Applicant argues that written description is met due to the amendment of the claims limiting them to the single species *Raphanus sativa* (see page 8, first full paragraph to page 9, lines 1-3).

This is not persuasive. The amending of the claims to limit them to the single species *Raphanus sativa* does not adequately describe the invention nor does it show that at the time the application was filed the inventor had possession of the claimed invention. The Examiner refers Applicant to page 4, paragraphs 1-3 of the previous Office Action mailed August 11, 2005 where it is stated "[t]he specification fails to provide a written description of the broad genus of *Raphanus* and *Raphanus sativa* plants" and "[t]he specification only provides a written description for *Raphanus* [sativa] line V33". As the claims are currently amended, they are still broadly drawn to the broad genus of *Raphanus sativa* plants and not the actual *Raphanus sativa* line V33. See *Vas-Cath Inc. v. Mahurkar* 1991 (CA FC) 19 USPQ2d 1111, 1115, which teaches that the purpose of the written description is for the purpose of warning an innocent purchaser, or other person using a machine, of his infringement of the patent; and at the same time, of taking from the inventor the means of practicing upon the credulity or the fears of other persons, by pretending that his invention is more than what it really is, or different from its ostensible objects, that the patentee is required to distinguish his invention in his specification.

***Claim Rejections - 35 USC § 112, first paragraph - Enablement***

5. Claims 1, 2, and 4-17 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The rejection is repeated for reasons of record as set forth in the Office Action mailed August 11, 2005, as applied to claims 1-17.

Applicant argues that the specification fully enables one skilled in the art to make a *Raphanus sativa* plant as claimed (see page 9, second paragraph).

This is not persuasive. The rejection of claims 4 and 17 is not based on the ability to make a *Raphanus sativa* plant, but the fact that the claims do not state that the claimed *Raphanus sativa* plant has been deposited. It is noted that Applicant has submitted a deposit statement, filed October 12, 2005, stating that *Raphanus sativa* line V33 has been deposited under ATCC No. PTA-3630, however, there is no deposit statement for lines CGN 6924 or CGN 7240. However, based on the claim language of claim 1 it cannot be determined if the claimed *Raphanus sativa* plant is the deposited *Raphanus sativa* line V33. Therefore, the plant of claim 1 would require undue trial and error experimentation by one of skill in the art to make and use a *Raphanus sativa* plant containing at least 800 nmols/g fresh weight anthocyanins as broadly claimed.

Applicant argues that the Examiner's opinion that the broad genus *Raphanus* is not enabled by the specification is rendered moot by the present claim amendments

and that the Examiner uses the references Hoshi et al and Savoskin et al to support this position (see page 10, first paragraph to page 12, end of first paragraph).

This is not persuasive. The Examiner must correct Applicant with regards to the cited references. The references are not used to support the enablement rejection based on the specification's lack of guidance regarding the broad genus *Raphanus* plants. The references are used to show the unpredictability of anthocyanin accumulation in plants. Applicant is correct that the Hoshi et al reference relates to the species *Brassica campestris* and not *Raphanus sativa* as the Examiner mistakenly quoted. However, the reference does show that the trait of anthocyanin accumulation is conferred by expression of multiple genes from multiple loci. Even so, Savoskin et al does teach that the genetic interactions that confer a trait of anthocyanin accumulation are polygenic and unpredictably genetically complex in *Raphanus*. Though both of the cited references teach anthocyanin accumulation in the roots of the plants and not the sprouts, they still show the complexity and unpredictability of anthocyanin accumulation and thus would require undue trial and error experimentation to make crosses and select for plants having the claimed traits.

Applicant's assertion that one can screen *Raphanus sativa* plants from public gene banks for *Raphanus sativa* plants having the ability to produce sprouts with at least some purple coloring, as stated on page 11, second paragraph of 'REMARKS', filed October 12, 2005, does not make the claimed invention enabled. Applicant's invention is based on an actual *Raphanus sativa* plant, not methods for screening for plants with purple coloring.

***Claim Rejections - 35 USC § 102(b)***

6. Claim 16 remains rejected under 35 U.S.C. 102(b) as being anticipated by Giusti et al (J. Agric. Food Chem 46: 4858-4863, 1998), as stated on page 11 of the previous Office Action.

Applicant argues that the reference is concerned with anthocyanin pigments in the skin and flesh of radishes and not the sprouts (see page 13, first paragraph of 'REMARKS' filed October 12, 2005).

This is not persuasive. The claimed method states "recovery of the anthocyanins in the plant or part thereof" (see step (c) of claim 16) and does not say it has to be specifically from the sprouts. Even if the claim did state this, the rejection would be proper because the anthocyanins would be the same whether it was obtain from the root, shoot, skin, flesh, etc.

***Claim Rejections - 35 USC § 103***

7. Claims 13-15 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Giusti et al (1996), in view of Khare et al (Indian J. Plant Physiol. 34: 235-241, 1991), and further in view of Poindexter et al (U.S. Patent 3,643,376).

Applicant argues that the combined teachings do not teach the production of anthocyanins in the sprout (see page 15, third paragraph to page 16, end of last paragraph of 'REMARKS', filed October 12, 2005).



This is not persuasive. The Examiner maintains that the combined references teach the claimed invention as stated on pages 13-15 of the previous Office Action mailed August 11, 2005.

### ***Conclusion***

8. No claims are allowed.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith O. Robinson, Ph.D. whose telephone number is 571-272-2918. The examiner can normally be reached on Monday - Friday 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone

Art Unit: 1638

number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith O. Robinson, Ph.D.

December 22, 2005

DAVID H. KRUSE, PH.D.  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "David Kruse", written over the printed name and title.